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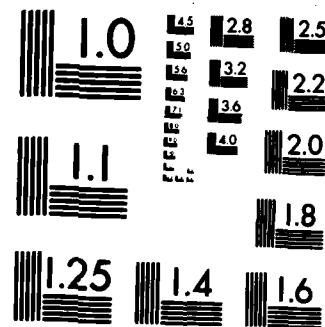
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## FOREIGN TECHNOLOGY DIVISION

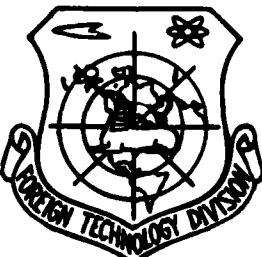


METEOROLOGICAL WEAPONS

by

Z. Wei

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## METEOROLOGICAL WEAPONS

ZHOU WEI

It is well known that there are two kinds of weapons used in the contemporary war: conventional weapons and nuclear weapons. As war develops, an effective special weapon - meteorological weapons, also comes into the game.

### IT IS NOT MYSTERIOUS

Meteorological weapons might not be familiar to everyone. Actually the so called meteorological weapons are no more than military application of meteorological science and technology. In more detail, it is the military application of changing weather artificially. The reason why weather can be changed artificially is due to unstable factors ( such as thermal factors and dynamical factors ) in the atmosphere. What are such unstable factors? They can be illustrated through an example of firing a gun: Before shooting, the bullet is loaded, now consider it at the time when the bullet is being shot. Only after one click the bullet will be moving very rapidly. the instability of the atmosphere is just like that of a bullet ready to be shot. Only a small amount of energy can trigger a large amount of energy transfer. The result of such an energy transfer in the atmosphere will lead to changes of weather and climate in certain areas. If people have a certain purpose in their mind they can add a certain amount of energy to the atmosphere and change the weather in the direction that they expect. This is the basic principle behind changing weather artificially. According to this principle, certain scientific methods ( such as artificial rainfall by stimulating clouds with an airplane ) can be used to increase the rainfall in the enemy country in order to create a man-made flood, or to decrease the rainfall in order to create a man-made drought in the enemy country. In the same way one can also raise the temperature in the enemy country in order to create extremely hot weather, or to lower the temperature in order to create a bitter cold. One can also try to vary the path of a typhoon so that the typhoon strikes an enemy country. All these

methods will result in a smashing blow to the national defense, industry, agriculture and national economy of an enemy country. In short, meteorological weapons are used to control the changes of weather such as wind, rain, snow, cold and heat on the basis of science and technology, to use the changes as a weapon to destroy the military equipment of enemies in order to smash these enemies.

### **GREAT POWER**

As known to everyone, since the power of disastrous weather is very strong, human life is also greatly effected by disastrous weather. Let us illustrate this point with the example of a typhoon.

A typhoon is a weather system which originates in tropical oceans. The energy produced and consumed in a typhoon has been calculated. For example, a typhoon with medium strength can carry 2.5 billion tons of water back and forth within several hours. A typhoon with a diameter of approximately 800 kilometers can carry as much energy as 17.6 million power plants with the capacity of 125 thousand kilowatts each. It is also estimated that the energy which an ordinary typhoon can carry is equivalent to the energy released by the explosion of ten thousand to five hundred thousand atomic bombs. From this example we can see the power of disastrous weather. If we are able to control or effect the formation and the development of disastrous weather which carries enormous power, and this can be applied to war, then no other weapons can compete with it. As soon as meteorological weapons are applied in practice, its extraordinary power can beat any advanced weapons. However we should also notice the difficulties in applying the meteorological weapons in practice under the present level of science and technology, so that in the contemporary war meteorological weapons are not eligible as "leading actors", but rather as "supporting actors".

### **FIRST ATTEMPT**

Although the meteorological weapons are not eligible as "leading actors", it is also not true to consider meteorological weapons as purely imagination. Starting from the

40's scientists have carried out researches on artificial rainfall, artificial hail elimination, artificial fog, artificial fog elimination etc. Some research is not in the test stage rather than it is in the application stage with fruitful results. At present due to the limitation in the current level of science and technology, only artificial rainfall, artificial fog, and artificial fog elimination have been applied to military actions and prove to be useful.

During the Second World War, the English-American Allied Forces often set out airplanes to bomb important military basis, main cities, ports and industrial areas in Germany by surprise. These important areas were extremely intimidated. The Germans were very angry at such a sneaky way of bombing, but they could not figure out an effective way to defend themselves. Later on a suggestion from some Germany meteorologists was adopted. According to the suggestion, a large quantity of fog-formation chemical was spread above these important areas which were in need of protection, so that a thick fog was created artificially to cover the planned protection area. Thus the pilots could hardly see anything in their flight. Of course they could not find the bombing targets. Eventually the English-American Allied Forces were forced to stop the bombing action. Thus the German troops protected many important areas using the artificial fog. In the winter of 1968, a thick fog covered the Elmondoft (phonetically) air force base in Alaska in the United States for a long time. It seriously effected the airplanes in their taking off and touching down. Accidents were often reported. Later on a suggestion from the meteorologists of the airport was adopted to eliminate the thick fog above the airport using fog-elimination chemicals, so that more than 160 fighter planes could take off and land safely to insure the military action. At the beginning of the 70's, American troops were having a hard time in their aggressive war against Vietnam. In order to get rid of the hardship, the American government decided to secretly use the method of artificial rainfall, a method which had never been used by anyone before, above Vietnam. In order to succeed, US government sent many meteorologists to Vietnam for observations. After serious analysis and investigation, they chose a special cloudy day to spread a large

amount of catalysts above the planned area. As expected, it started to rain cats and dogs. The storm lasted several days and nights. A flood destroyed bridges, dams and muddy roads. Transportation was interrupted. The main path for the transport of military supplies was called "Ho Chi Minh Path". It was also destroyed. The transportation was interrupted for several months in Southern Vietnam due to this man-made flood. Because of lack of supplies, plus the beastly weather, the Vietnamese troops were entangled in tremendous difficulties in their military action. In the meanwhile American troops gained extra advantages which could not even be gained by using airplanes, cannons and tanks. It also helped Americans to get rid of the hardship they were having in the battlefield.

As we can see from above, changing weather artificially started to show its ability in some campaigns, it also proved to be very powerful. The success is not an accident, but rather the inevitable outcome of the development of meteorological science and technology. At the same time it also proved that meteorological weapons do exist, they are neither scientific imagination nor deceitful words

#### BRIGHT FUTURE

Meteorological weapons attract the attention of scientists because of its magical power, so that its future is very fascinating. At present all the scientifically developed countries are doing research on meteorological weapons, some countries (such as the USA) even spend a big budget to establish bases in some small islands far from the continent for research and tests of meteorological weapons. According to reports, Great Britain recently achieved some important progress in the research of meteorological weapons. The British proposed a plan which is realistic under the present level of science and technology. According to the plan, the west coast of Britain will be equipped with a series of electrodes, to ionize the magnesium atoms in the troposphere, so that an electrostatic screening layer with a changeable density will be formed. The density may be adjusted to control the motion of cold air and warm air, so that weather in the range of several kilometers in radius may be controlled artificially. Therefore we can see that although meteorological

weapons are still in the primary stage of secret research and testing, its future is bright. People will eventually find out that meteorological weapons are going to compete with other weapons for the throne of the "Weapon Empire".

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